

## STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0100790; AI 38185; PER20070001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** Town of Roseland  
Roseland Wastewater Treatment Facility  
P.O. Box 302  
Roseland, LA 70456
- II. PREPARED BY:** Angela Marse
- DATE PREPARED:** June 13, 2008
- III. PERMIT ACTION:** reissue LPDES permit LA0100790, AI 38185; PER20070001
- LPDES application received: December 10, 2007
- LPDES permit issued: June 1, 2003  
LPDES permit expired: May 31, 2008

**IV. FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Town of Roseland.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located ¼ mile west of US Hwy. 51 on Roseland Avenue in Roseland, Tangipahoa Parish.
- D. The treatment facility consists of a three cell oxidation pond. Cell 1 is aerated. Cell 2 is divided with 1/3 of the cell being a partial mix aerated zone and the remaining 2/3 of the cell being anaerobic with a LEMTEC modular cover. Cell 3 is anaerobic with a LEMTEC modular cover. Treatment is concluded with a LEMNA Polishing Reactor. Disinfection is by chlorination.

**E. Outfall 001**

Discharge Location: Latitude 30° 45' 24" North  
Longitude 90° 31' 10" West

Description: treated sanitary wastewater

Design Capacity: 0.2 MGD

Type of Flow Measurement which the facility is currently using:  
Combination Totalizing Meter / Continuous Recorder

## V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into the Natalbany River in segment 040503 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040503 of the Lake Ponchartrain Basin are as indicated in the table below<sup>1/</sup>:

Overall Degree of Support for Segment 040503	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

<sup>1/</sup>The designated uses and degree of support for Segment 040503 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act, as amended by the Water Quality Act of 1987 and EPA's regulations at 40 CFR 130, require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040503 of the Lake Pontchartrain Basin is on the 2006 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury, dissolved oxygen (EPA), pathogen indicators, and phosphorus (EPA). To date no TMDLs have been completed for this waterbody. A reopener clause has been included in the permit should the TMDLs require more stringent effluent limitations. Suspected causes of concern are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

### **Dissolved oxygen and phosphorus**

BOD<sub>5</sub> has been used as an indicator parameter in the permit for dissolved oxygen and phosphorus, a nutrient. BOD<sub>5</sub> is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during the decomposition of organic material over a five day period. BOD<sub>5</sub> limits protect against the discharge of oxygen depleting pollutants at levels that would cause in stream oxygen problems. Dissolved oxygen directly correlates with overall nutrient impact. Thus, when LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impacts. (LDEQ declaratory ruling April 29, 1996) The effluent limit for BOD<sub>5</sub> is base on the Statewide Sanitary Effluent Limitations Policy and is the same as the previous permit.

### **Pathogen Indicators**

Monitoring for fecal coliform colonies is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against the development of pathogenic organisms in the receiving waterbodies, fecal coliform limits have been established in the permit.

## Statement of Basis

LA0100790; AI 38185; PER20070001

Page 3

**Mercury**

The source of mercury has been identified as atmospheric deposition. However, sometimes commercial users can contribute mercury to effluent discharges from wastewater treatment plants depending on their business operations. The Town of Roseland (Mayor Perry) was contacted via email on 5/27/08 and again by phone on June 4, 2008. To date, no response has been received regarding a request for a list of commercial users. Therefore, the permittee will be required to develop a Mercury Minimization Plan Program (MMPP). Should analytical testing required in the MMPP or the TMDL for mercury determine a mercury effluent limitation is necessary, a reopener clause is included in the permit.

**VI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 040503 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Gulf Sturgeon, which is listed as a threatened/endangered species. This draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the Gulf Sturgeon since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation  
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse  
Water Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

## Statement of Basis

LA0100790; AI 38185; PER20070001

Page 4

**IX. PROPOSED PERMIT LIMITS:****Final Effluent Limits:****OUTFALL 001**

No TMDL Studies have been conducted since issuance of the previous permit. The facility has not been modified either. Therefore, the proposed permit will contain the same effluent limits as the previous permit.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD <sub>5</sub>	17	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSEL) for facilities of this type and size.
TSS	25	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

\*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD<sub>5</sub> and TSS in terms of concentration.

**Other Effluent Limitations:****1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

## Statement of Basis

LA0100790; AI 38185; PER20070001

Page 5

## 2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

## 3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0100790: Issued: June 1, 2003  
Expired: May 31, 2008

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
BOD <sub>5</sub>	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

The permit contains pretreatment language.

The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

## A) Inspections

A review of the files indicates the following most recent inspection was performed for this facility.

Date: April 17, 2007

Inspector: Sean Darensburg

Findings and/or Violations:

1. The DMR submitted for August 2006 revealed a BOD excursion. DMRs for May, 2006 and January, 2006 were not submitted.
2. Facility is a three cell oxidation pond in operation at the time of the inspection.
3. Portions of the pond are covered. Algae bloom seen. Duckweed borders pond. Aerators operational.
4. Chlorine gas is used for disinfection. A little bit of discolored flock was seen at the time of inspection.
5. Could not locate the receiving waterbody because of vegetative overgrowth.

## B) Compliance and/or Administrative Orders

A review of the files indicates no recent enforcement actions administered against this facility. A letter of deficiency was sent to the facility on May 21, 2007 regarding the above inspection. Areas of concern were the BOD excursion for August, 2006; algae bloom in the pond, vegetative overgrowth at the outfall location, and DMRs not submitted for January, 2006 and May, 2006.

## Statement of Basis

LA0100790; AI 38185; PER20070001

Page 6

**C) DMR Review**

A review of the discharge monitoring reports for the period beginning January, 2006 through March, 2008 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
BOD, mthly avg	001	December, 2007	10 mg/l	11 mg/l
BOD, mthly avg	001	February, 2008	10 mg/l	14.45 mg/l
BOD, weekly avg	001	February, 2008	15 mg/l	25.9 mg/l

The August, 2006 violation for BOD was not in the files. DMRs were not submitted for May, 2006 and January, 2006.

**XII. ADDITIONAL INFORMATION:**

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to establish TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2909., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.2 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.2 \text{ MGD} \times 10 \text{ mg/l} = 17 \text{ lb/day}$$

**Pretreatment Requirements**

Based upon consultation with LDEQ pretreatment personnel, standard pretreatment language is included in the permit.

## Statement of Basis

LA0100790; AI 38185; PER20070001

Page 7

**Pollution Prevention Requirements**

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

<b>Audit Period Begins</b>	<b>Audit Period Ends</b>	<b>Audit Report Completion Date</b>
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

**XIII. TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

**XIV. REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Roseland, Roseland Wastewater Treatment Facility, December 10, 2007.